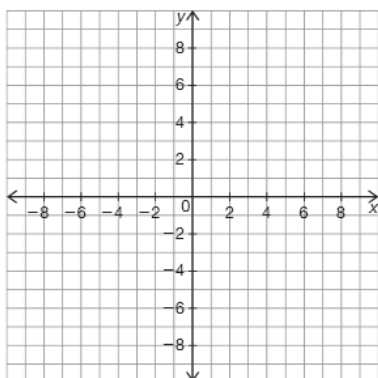


LESSON 2.3 Assignment

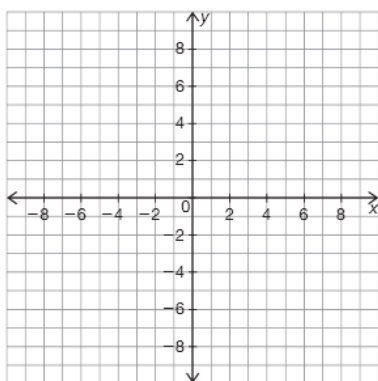
Name _____ Date _____

Up and Down**Vertical Dilations of Quadratic Functions****2**

1. Graph $d(x) = -\frac{1}{2}(x + 5)^2 - 3$ without a calculator. Explain each of your steps.



2. Graph $g(x) = 3(x - 2)^2 - 6$ without a calculator. Explain each of your steps.

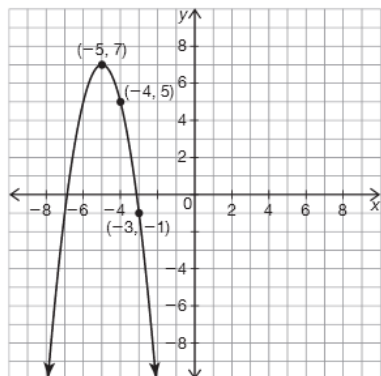


LESSON 2.3 Assignment

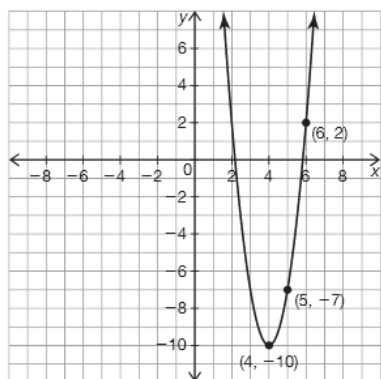
page 2

2

3. Write the function $h(x)$ that represents the given graph. Explain your reasoning.



4. Write the function $p(x)$ that represents the given graph. Explain your reasoning.



5. The function $t(x)$ is a transformation of $f(x) = x^2$. The function $t(x)$ has a vertex at $(-12, -15)$ and has been vertically compressed by a factor of $\frac{1}{4}$. Write the function $t(x)$. Explain your reasoning.